SALMONID DISEASE CONTROL POLICY

of the FISHERIES CO-MANAGERS

# of WASHINGTON STATE

developed by
NORTHWEST INDIAN FISHERIES COMMISSION
WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Revision effective March 17, 1998

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SALMONID DISEASE CONTROL POLICY
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I. POLICY

It shall be the policy of the Fisheries Co-Managers of Washington State to protect wild and cultured fish populations by preventing importation, dissemination, and amplification of pathogens known to adversely affect salmonids. This policy sets forth the minimum fish health standards. A Co-Manager may implement additional practices or measures at their facilities at their discretion. Further, acknowledging that many complex fish health situations will arise, it shall be the policy to foster open and frequent communication between Co-Managers and Co-Operators to jointly resolve these issues without endangering the health of wild and cultured fish populations.

II. DEFINITIONS

ACCREDITED FISH HEALTH INSPECTOR - An individual holding one of the following certifications:
- American Fisheries Society (AFS) - Fish Health Inspector or Fish Pathologist
- Canadian Fish Health Officer
- United States Title 50 Inspector (Code of Federal Regulations, Title 50, Chapter 1, Subchapter B, Part 16)

ASSUMED PATHOGEN PREVALENCE LEVEL (APPL) - The percent of any lot of fish, either 2% or 5%, that is assumed to have a pathogen at a detectable level using tests outlined in the AFS "Fish Health Blue Book" or a test agreed to by the Co-Managers' fish health staffs. This level is used to determine the sample size needed to provide a 95% confidence level of detecting the specified pathogen.

CAPTIVE BROODSTOCK - All adult salmonids which have been reared full term in captivity for the purpose of collecting eggs and/or milt. This includes stocks which are landlocked for their entire life cycle.

CO-OPERATORS - All government agencies and entities other than the Co-Managers involved in the rearing and transfer of salmonids in Washington State.

CO-MANAGERS - Federally recognized Treaty Indian Tribes within Washington State and the State of Washington, Department of Fish and Wildlife (WDFW).

CONFIRMED VIRAL IDENTIFICATION - The identification of a replicating viral agent by serum neutralization assay or other confirmatory test agreed to by the Co-Managers.

CURRENT BROOD DOCUMENT - The final version of the future brood document that has been reviewed and approved by all Co-Managers and Co-Operators (see Section III.A.). All egg/fish transfers listed in this document will be approved pending results of their fish health inspection.

EGG DISINFECTION - The exposure of water-hardened or eyed eggs to a buffered iodophor solution containing at least 100 ppm active iodine for not less than ten (10) minutes. The minimum ratio of iodophor solution to eggs (volume to volume) will be one (1) part iodophor solution to one (1) part eggs with no reuse of solution.

EPIZOOTIC - The occurrence of an infectious disease which results in an average daily mortality of at least 0.1% within a specific rearing unit for five (5) consecutive days.

FISH - Live salmonids, eggs, or gametes.

FISH HEALTH BLUE BOOK - The most recent edition of "Procedures for the Detection and Identification of Certain Fish Pathogens" published by the Fish Health Section of the AFS.
FREE-RANGING - Fish which are free to migrate in a natural environment.

FREE-RANGING BROODSTOCK - All adult salmonids collected or captured from the waters of Washington State, for the purpose of collecting eggs and/or milt, which have spent at least part of their life cycle free-ranging, either in salt or fresh water. Adult fish collected or captured temporarily but released unspent are not considered broodstock.

FUTURE BROOD DOCUMENT - A draft document consisting of all Co-Managers' and Co-Operators' programs of proposed egg and fish transfers and releases for the coming year. This document is coordinated by Washington Department of Fish and Wildlife (see Section III.A.).

HEALTH MANAGEMENT ZONE (HMZ) - A geographic area containing one or more watersheds from which the transfers of live fish or gametes are controlled for fish health management purposes. Facilities which have regulated pathogen-free water supplies can be islands within an HMZ and have less restrictions on egg and fish transfers out of watershed than their surface water counterparts. Egg and Fish Health Management Zones are listed in Section IX. The Fish Health Management Zones (FHMZ) are smaller than the Egg Health Management Zones (EHMZ) because of the higher level of risk associated with fish transfers.

INSPECTION - The collection of a statistically valid sample of fish tissues and/or fluids for examination for regulated pathogens. This is to be performed by, or under the supervision of, an accredited Fish Health Inspector. Methods used will be those described in the "Fish Health Blue Book" or others mutually agreed to by Co-Managers' fish health staff.

IODOPHOR WATER-HARDENING EGGS - The exposure of recently fertilized eggs (not more than five [5] minutes post exposure to water) to a buffered iodophor solution containing at least 75 ppm iodine for not less than sixty (60) minutes. The minimum ratio of iodophor solution to eggs (volume to volume) will be one (1) part iodophor solution to one (1) part eggs with no reuse of solution.

ISOLATION - The process of keeping a group of eggs or fish physically separated from other groups at the same facility for the purpose of preventing cross contamination with possible pathogens. This is accomplished by incubating/rearing in separate containers with no reuse of each others' incubation/rearing water. A group may consist of an entire lot of fish or be a smaller unit of one lot, such as one day's spawn. Separate equipment for each group is preferable, but reuse of equipment is acceptable if it is adequately disinfected between isolation units.

LANDLOCKED - Fish in a system that has a barrier preventing passage of all anadromous fish or other fish which have come into contact with anadromous fish.

LOT OF FISH - A group of fish of the same species and age that originated from the same discrete spawning population and that have always shared a common water supply. In the case of adult broodstock, various age groups may comprise the same "lot" provided they are of the same species and have shared the same water supply while brood fish.

PRESUMPTIVE VIRAL IDENTIFICATION - The detection of a replicating agent in cell cultures inoculated with fish tissues or fluids. Presumptive identification is made when cytopathic effect (CPE) is replicated in cell culture.

QUARANTINE - Keeping a group of eggs or fish in isolation as defined above with the following restriction: effluent from eggs or fish in quarantine will be disinfected with a residual level of at least 2 ppm chlorine for a minimum of ten (10) minutes of contact time or by other methods acceptable to relevant Co-Managers.

QUARANTINE RESEARCH FACILITY - A facility which holds and maintains fish specifically for purposes of research. Fish will be held in quarantine in these facilities and shall not be released to waters of the state. All quarantine research facilities must be reviewed and approved by WDFW in writing prior to operation. Prior to approving any new facility, WDFW will provide the relevant Co-Managers' fish health staffs five (5) working days to review and comment on the proposed plans. Facilities previously approved by WDFW need not re-apply.

REGULATED PATHOGEN-FREE WATER - Water which is free of regulated fish pathogen(s). This includes the following:

1. Ground water or untreated surface water which has been demonstrated to be fish-free; or,
2. Surface water containing fish which has been treated in a manner sufficient to destroy all of the regulated pathogens; or,
3. Untreated surface water containing fish, but only if the following criteria are met:

   All fish present in the surface water are landlocked; and,

   A three (3) year negative history for regulated pathogens has been established for that water supply. To establish this history, testing for regulated viral pathogens must be done on all captive broodstocks on site or, if no susceptible broodstocks are present, a susceptible juvenile stock (cultured or wild) reared on the surface water must be tested. In addition, if fish are to be transferred and considered to be regulated pathogen-free, the regulated parasite pathogen, *Myxobolus cerebralis*, must be tested for using a susceptible stock (cultured or wild) reared in the surface water. Exposure must be sufficient to create a detectable infection.

Inspections must be conducted using at least the number of fish required to meet the 2% APPL using methods prescribed in the AFS Blue Book. The time period between adult or juvenile inspections must be at least eleven (11) months; and,

After a three year negative history has been established, subsequent testing as prescribed above must occur on an annual basis for regulated viral pathogens and every three years for M. *cerebralis*; and,

Any stocks planted into this water supply must be regulated pathogen-free as per this policy.

REGULATED PATHOGENS - Fish pathogens that: (a) have the potential to cause serious fish losses, (b) are not treatable, and (c) have limited range or do not exist within Washington. The following are regulated pathogens:

Viral - Infectious hematopoietic necrosis virus (IHNV)
- Infectious pancreatic necrosis virus (IPNV)
- North American viral hemorrhagic septicemia virus (VHSV)
- Viral pathogens not known to exist in Washington

Parasite - *Myxobolus cerebralis*

RELEASE - The liberation of captive fish into public waters of Washington State that results in them being free-ranging.

RELEVANT CO-MANAGERS - WDFW and those tribes which could experience fish health impacts from fish or egg movements within their area of concern.

REPORTABLE PATHOGENS - Fish pathogens that are of general interest, including regulated pathogens. Detection of these pathogens requires monthly notification of all Co-Managers' and Co-Operators' fish health representatives. The following are reportable pathogens:

Viral - All replicating agents

Bacterial - *Piscirickettsia salmonis*
- *Yersinia ruckeri*, *Aeromonas salmonicida*, and *Flavobacterium psychrophilum* that are resistant to antibiotics approved by FDA for use on salmonids.

Parasites - PKX (agent causing Proliferative Kidney Disease)
- *Ceratomyxa shasta*
- *Enterocytozoan salmonis*

SANITIZE - The process of eradicating a fish pathogen from a facility and/or its water supply. Recommended procedures are outlined in Section 6 of the Pacific Northwest Fish Health Protection Committee's Model Policy.

SPAWNING CYCLE - The period of time covering spawning of all salmonids starting with spring chinook and ending with steelhead. One cycle is identified as starting July 1 and ending June 30 of the following year.

SUSPECT EGGS/ FISH - Eggs and/or fish are considered suspect for regulated pathogens when their lot does not test positive but:

1. They are progeny taken the same day any adults test positive for a regulated viral pathogen, even if their parents test negative; or,
2. They are progeny of parents that were not screened for regulated viral pathogens but were of the same lot as the positive adults; or,
3. If eggs, they have been exposed to surface water after a regulated virus was detected within the watershed, or if fish, they have been exposed to surface water after a regulated pathogen was detected within the watershed.

TRANSFER - Any movement of eggs or fish into or within Washington State to include any movements between hatcheries, rearing facilities, watersheds, or the appropriate Health Management Zones.

WATER SUPPLY - The spring, well, stream, river, estuary, or other body of water used in the incubation/rearing of eggs or fish.

WATERSHED - Geographically distinct river basins which have separate saltwater entrances. May include one or more primary river systems.

III. IMPORT AND TRANSFER PERMITS

Transfers of live fish, eggs, or gametes into or within Washington State are allowed under a permit system implemented by the Co-Managers. The permit system consists of a formal notification process of all proposed egg or fish transfers to all relevant Co-Managers and documentation that the fish or eggs meet the fish health requirements specified in this policy.

A. Egg and Fish Transfer Notification Process

1. Future Brood Document process:
   All Co-Managers and Co-Operators will incorporate their planned program of egg and fish transfers and releases for the coming year into the Future Brood Document process coordinated by Washington Department of Fish and Wildlife (WDFW).

   All proposed programs will be exchanged and reviewed by Co-Managers' fish health staffs for consistency with the Salmonid Disease Control Policy each year. A three (3) year history of regulated and reportable pathogens for all facilities and watersheds will be available for review during this time. Upon final approval, the document will become accepted as the Current Brood Program and all transfers and releases listed within will be approved pending results of fish health inspections.

2. Unlisted Transfers/Releases or In Season Changes to the Current Brood Document:
   Any transfer or release of fish which is not listed in the Current Brood Document requires the requesting Co-Manager or Co-Operator to notify all relevant Co-Managers a minimum of five (5) working days prior to the proposed transfer or release. Changes can be made using WDFW's "Hatchery Production Change Form" (Appendix 3); WDFW's standard application form, SC-161 (Appendix 4); or any other form that supplies similar information. If the transfer or release is consistent with this policy and there are no objections from relevant Co-Managers within five (5) working days after notification, then the transfer or release is approved. No transfer or release that is inconsistent with this policy's requirements shall occur unless an exemption (Section VIII.) is acquired.

B. Fish Health Information Required for Transfer
   The following fish health information is required to be completed and on file with or received by the Co-Manager or Co-Operator of the receiving facility a minimum of two (2) working days prior to the actual transfer of eggs or fish:

1. Information required for egg transfers:
   a. A completed copy of the parental broodstock inspection report; and,
   b. A three (3) year history of regulated and reportable pathogens found within the facility and watershed, if this transfer was not part of the Future Brood Document review process.

2. Information required for fish transfers:

a. All egg transfer requirements listed above in Section III.B.1.; and,
b. A completed pre-transfer/release fish health examination report for that lot if they have been on untreated surface water. This examination is to be conducted by an accredited Fish Health Inspector no longer than six (6) weeks prior to transfer; and,
c. A summary of all findings of reportable pathogens, epizootics and diagnostic cases experienced by that lot.

C. It shall be the responsibility of the receiving facility Co-Manager or Co-Operator to verify that the transfer has been approved and all required fish health reports are completed and received prior to allowing entry of eggs or fish onto their facility.

However, eggs or fish may be transferred or imported prior to completion of the parental broodstock inspection report provided they are kept in isolation if transferred within a HMZ or, in quarantine if transferred between HMZs. The receiving facility Co-Manager or Co-Operator must obtain a copy of the completed fish health inspection report prior to releasing the eggs or fish from isolation or quarantine.

D. Imports from outside the United States must also be accompanied by a "Title 50" (50 CFR 16.13) inspection report.

E. A transfer/release request may be denied on the basis of the disease history of the stock and or facility as determined by the relevant Co-Managers.

IV. FISH HEALTH REQUIREMENTS FOR EGG AND FISH TRANSFERS:

Restrictions on egg and fish transfers in Washington State are intended to reduce pathogen dissemination within HMZs and prevent it between HMZs. EHMZs and FHMZs are identified and explained in Section IX. This section contains the requirements for handling eggs or fish, sampling for regulated pathogens, and transfer restrictions. The following factors are used to determine the fish health requirements for egg or fish transfers. **Origin of eggs/fish vs transfer destination:** sampling requirements will generally be greater for transfers between HMZ than for those within HMZ. **Pathogen status of water supply:** requirements will generally be less restrictive for eggs/fish maintained on pathogen-free water. **Pathogen history of stock and watershed:** a finding of a regulated pathogen in a watershed can cause transfer restrictions to be imposed on stocks not maintained on pathogen-free water. **Species of fish**: coho salmon generally have less restrictive sampling requirements because they are refractile to the viral pathogens found within the State of Washington. **Pathogen of concern**: VHSV has different requirements from IPNV and IHNV because of its low virulence in salmonids. *M. cerebralis* is not vertically transmitted within the eggs so it is only of concern when transferring fish. There are also different tissue type requirements when sampling for IPNV because it is generally detected only in kidney/spleen tissue while ovarian fluid is considered the most sensitive for IHNV and VHSV.

A. Egg Transfers Within an EHMZ

1. Minimum Egg Handling Requirements for Egg Transfers Within an EHMZ:
   a. For transfers within watershed, from a watershed negative for regulated viral pathogens, or between watersheds positive for a regulated viral pathogen:
      (1). All eggs must be water-hardened in iodophor prior to entering the incubation area.
      (2). All eggs transferred to a new facility must be iodophor disinfected upon receipt.
      (3). Eggs that are being transferred out of watershed must be held in isolation at either the sending or receiving facility until the adult health inspection report is completed and received by the facility Co-Manager or Co-Operator.
   b. For transfers from a watershed positive for a regulated viral pathogen to a watershed negative for that pathogen:
      (1). The requirements listed immediately above in Section IV.A.1.a. must be followed; and,
      (2). The eggs must be maintained on regulated virus-free water in isolation until transferred, or they can be held in quarantine at the receiving facility until the adult health inspection report is completed. Detection of a regulated viral pathogen in the parents will prevent transfer of the progeny in the isolation group. If the eggs are being held in quarantine at the receiving facility, the eggs must be returned to the watershed of origin or be destroyed. For the purposes of transfer the minimum size for any isolation group is one day's eggtake.

2. Minimum Sampling Requirements: Eggs from the following types of broodstocks may be transferred within an EHMZ provided the spawning adults are screened for regulated viral pathogens at the specified minimum assumed pathogen prevalence levels (APPLs) and are found to be negative:
   a. Free-ranging or captive broodstocks not on regulated virus-free water:
      (1). Transfers within watershed - ovarian fluid and kidney/spleen tissues must be sampled at the 5% APPL.
      (2). Transfers between watersheds but within EHMZ when the transfer is not exposing the receiving watershed to any regulated viral pathogens that have not been detected there within the last three (3) years or within the current spawning cycle for VHSV- ovarian fluid must be sampled at the 2% APPL and kidney/spleen tissues at the 5% APPL.
   b. Captive broodstocks on regulated virus-free water:
      (1). If the transfer is either within watershed, or between watersheds and the broodstock and site have a negative history of regulated viral pathogens for the last three (3) consecutive years - ovarian fluid and kidney/spleen tissues must be sampled at the 5% APPL; or,
      (2). If the transfer is between watersheds and the broodstock and site have a negative history, but it is less than three (3) years, ovarian fluids must be sampled at the 2% APPL and kidney/spleen tissues at the 5% APPL; or,
      (3). If a facility has been sanitized after the detection of a regulated viral pathogen and brood are the result of introduction of eggs from a regulated virus-free

broodstock - ovarian fluid must be sampled at the 2% APPL and kidney/spleen at the 5% APPL.

3. Additional Egg Transfer Restrictions Due to Viral Detections: If a regulated viral pathogen is detected in a watershed then special restrictions apply towards transferring suspect eggs between watersheds within an EHMZ.
   a. IHNV or IPNV detection - Below restrictions apply to all species except coho salmon unless the detection was in coho salmon. If the detection was not in coho salmon the handling and sampling requirements for coho salmon remain at those listed in Section IV.A.1.a. and 2.a.
      (1). Disposition of suspect eggs transferred to another facility before the virus detection: If suspect eggs have been transferred to a hatchery in another watershed where the respective virus has not been detected in the last three (3) years, the eggs must be returned to the hatchery of origin or be destroyed. The only exception would be if the eggs are maintained at a quarantine research facility.
      (2). Eggs from other spawn dates may be transferred to watersheds which have been negative for the respective regulated viral pathogen during the previous three (3) years as long as the following conditions are met:
         (a). IHNV: Each spawn date, 100% of parents of the progeny to be transferred must have their sex products, ovarian fluid and milt (kidney/spleen tissues can be substituted for milt), screened for viruses. If sex products are screened, kidney/spleen tissues also must also be screened at the 5% APPL at some point during the spawning season. All samples from each spawn date must be negative and (c). must be met.
         (b). IPNV: Each spawn date, 100% of the parents of the progeny to be transferred must have their kidney/spleen tissues screened for virus. Ovarian fluids should also be sampled at the minimum APPL required for within EHMZ transfers at any point during the spawning season. All samples from each spawn date must be negative; and,
         (c). Eggs must be incubated on regulated virus-free water in isolation until transferred, or they can be held in quarantine at the receiving facility until the adult health inspection report is completed.
      (3). Length of restrictions: The above sampling and transfer restrictions will be in effect until all species in the watershed have a three (3) year negative history for regulated viral pathogens.
   b. North American VHSV detections in all species:
      (1). Disposition of suspect eggs transferred to another facility before the virus detection: If suspect eggs have been transferred to another watershed where VHSV has not been detected within the current spawning cycle, the eggs must be returned to the hatchery of origin or be destroyed. The only exception would be if the eggs are maintained at an approved quarantine research facility.

(2). Eggs from other spawn dates that spawning cycle may be transferred to another watershed where VHSV has not been detected within the current spawning cycle provided the following conditions are met:

(a). Each spawn date, 100% of the parents of the progeny to be transferred must have their sex products, ovarian fluid and milt (kidney/spleen tissues may be substituted for milt), screened for viruses. If sex products are screened, kidney/spleen tissues also must be screened at the 5% APPL at any point during the spawning season. All samples from each spawn date must be negative; and,

(b). Eggs must be incubated on regulated virus-free water in isolation until transferred, or they can be held in quarantine at the receiving facility until the adult health inspection report is completed.

(3). Additional testing required: A detection of North American VHSV in an adult broodstock will require the following additional viral testing:

(a). Immediate testing at the 2% APPL of all juvenile fish stocks on site that are on surface water.

(b). Subsequent testing at the 2% APPL of progeny from suspect eggs at the swim-up stage.

(4). Length of restrictions:

(a). The above broodstock sampling and egg transfer restrictions will remain in place for all adult broodstocks spawned in the watershed after the detection until the end of the spawning cycle provided that VHSV is not detected in any juvenile fish stocks within the watershed.

(b). Detection of VHSV in juvenile fish will require an emergency meeting of the Co-Managers to determine the necessary restrictions.

c. Egg transfer restrictions for other regulated viral pathogens: Detection of regulated viral pathogens, not previously known to exist in Washington, will require an emergency meeting of the Co-Managers' fish health staffs to recommend actions to be taken.

B. <u>Egg Transfers Outside of an EHMZ</u>

1. Minimum Sampling Requirements: Eggs from the following types of broodstocks may be transferred outside of an EHMZ provided that the parents are screened for regulated viral pathogens at the specified levels and are found to be negative:

a. All free-ranging or captive broodstocks, except coho salmon, that are not on regulated virus-free water:

(1). Each spawn date, 100% of the parents of the progeny to be transferred must have their sex products, ovarian fluid and milt (kidney/spleen tissues can be substituted for milt) screened for viruses. If sex products are screened, kidney/spleen tissues must also be screened at the 5% APPL at any point during that spawning season. All samples from each spawn date must be negative; and,

(2). If the adults are from a watershed with a positive detection of IPNV in the previous three (3) years, kidney/spleen tissues from 100% of the parents of the progeny to be transferred must also be screened. All samples from each spawn date must be negative.

b. Coho salmon broodstock that are not on regulated virus-free water:

(1). If coho salmon broodstock within the watershed have a negative history for IHNV or IPNV for the last three (3) consecutive years and there has been no adult detection of VHSV in any species during the current spawning cycle - ovarian fluid must be sampled at the 2% APPL and kidney/spleen tissues sampled at the 5% APPL and must be negative; or,

(2). If the coho salmon broodstock does not have a complete three year disease history, has a positive IHNV detection within the last three (3) years, or there has been a detection of VHSV in the watershed in the current spawning cycle - each spawn date, 100% of the parents of the progeny to be transferred must have their sex products, ovarian fluid and milt (kidney/spleen tissues may be substituted for milt), screened for viruses. If sex products are screened, kidney/spleen tissues must also be screened at the 5% APPL at any point during the spawning season. All samples tested must be negative; or,

(3). If a coho salmon broodstock within the watershed has had a positive IPNV detection within the previous three (3) years the kidney/spleen tissues from 100% of the parents of the progeny to be transferred must be screened for virus. Ovarian fluids from the females must also be sampled at the 2% APPL at any point during the spawning season. All samples from each spawn date must be negative.

c. All species of captive broodstocks that are reared on regulated virus-free water:

(1). If the broodstock and site have a negative history of regulated viruses for the last three (3) consecutive years - ovarian fluid and kidney/spleen tissues must be sampled at the 5% APPL and must be negative; or,

(2). If the broodstock and site does not have a complete three (3) year disease history - each spawn date, 100% of the parents of the progeny to be transferred must have their sex products, ovarian fluid and milt (kidney/spleen tissues may be substituted for milt), screened for viruses. If sex products are screened, kidney/spleen tissues must also be screened at the 5% APPL at any point during the spawning season. All samples from each spawn date must be negative; or,

(3). If a facility has been sanitized after the detection of a regulated viral pathogen or it is a new facility, and brood are the result of introduction of eggs from a regulated pathogen-free stock - ovarian fluid must be sampled at the 2% APPL and kidney/spleen at the 5% APPL and all samples must be negative.

2. Minimum Egg Handling Requirements for Transfers Between EHMZs:
   a. All eggs must be water-hardened in iodophor prior to entering the incubation area.
   b. All eggs transferred to a new facility must be iodophor disinfected upon receipt.

c. Eggs must be incubated on regulated virus-free water in isolation until transferred or they can be held in quarantine at the receiving facility until the adult health inspection report is completed and received by the facility Co-Manager or Co-Operator. Any positives detected in the parents will prevent transfer of all eggs within an isolation group. For the purposes of transfer the minimum size for any isolation group is one day's egg take.

3. Viral Detection Restrictions:
   a. Identification of a regulated viral pathogen in adult broodstock will prevent the transfer of all eggs taken from that particular spawn date to another EHMZ unless they are to be held in an approved research quarantine facility.
   b. Identification of a regulated viral pathogen in adult broodstock will require that all eggs from that particular spawn date be returned to the watershed of origin or be destroyed.
   c. Eggs from other spawn dates can still be transferred as long as their parents test negative for regulated viral pathogens and all conditions above (Section IV.B.2.) are met.
   d. Detection of regulated viral pathogens, not previously known to exist in Washington, will require an emergency meeting of the Co-Managers' fish health staffs to recommend actions to be taken.

C. Fish Transfers Within a FHMZ

1. Fish Transfer Requirements: Fish may be transferred within a FHMZ provided that all of the following reports are completed and on file with or received by the Co-Manager or Co-Operator of the receiving facility two (2) working days prior to the transfer:

   a. An adult health inspection report on parental broodstock. The screening for this report will be at a minimum of the APPLs in Section IV.A.1. (note the differences between FHMZ and EHMZ).

   b. A juvenile fish health examination report. The specific lots to be transferred must have an on site pre-transfer/release health examination if they have been on untreated surface water. This examination is to be conducted by an accredited Fish Health Inspector no longer than six (6) weeks prior to transfer.

   c. A summary of all findings of reportable pathogens, epizootics, and diagnostic cases experienced by the lots to be transferred.

   d. A three (3) year history of all regulated and reportable pathogens found within the facility and watershed if this transfer was not part of the Future Brood Document review process.

2. Fish Transfer Restrictions Due to Detection of a Regulated Pathogen:
   a. Transfers of fish that test positive for a regulated pathogen: Any lot of fish which test positive for a regulated pathogen shall not be transferred out of the watershed in which they are being reared unless the transfer is to an approved quarantine research facility.

b. Transfers of fish that are suspect for a regulated pathogen: A lot of fish that is suspect for a regulated pathogen may only be transferred to another watershed within a FHMZ in which the pathogen has been detected within the number of years indicated below. In addition the lot of fish to be transferred must be tested for that pathogen at the 2% APPL no longer than six (6) weeks prior to transfer and be negative.

(1). *M. cerebralis* and all viral pathogens except North American VHSV - suspect fish may only be transferred to a watershed which has had a positive detection of the respective pathogen within the last three (3) years.

(2). North American VHSV - suspect fish may only be transferred to another watershed that has had a detection of North American VHSV within the current spawning cycle. Suspect fish may be moved to a negative watershed after September 1 of the next spawning cycle providing the following conditions are met.

(a). All juvenile fish stocks on site that are on surface water at the time of the isolation are tested for VHSV at the 2% APPL and are negative; and,

(b). Progeny from suspect eggs are tested for VHSV at the 2% APPL at swim-up stage. All samples must be negative; and,

(c). There are no adult VHSV detections in the next spawning cycle prior to transfer of the fish. An exception to this would be if the fish have been maintained in isolation on regulated pathogen-free water.

(d). Detection of VHSV in any juvenile fish will require an emergency meeting of Co-Managers to determine a course of action.

c. Permitted transfers:

1. Juveniles on station at the time of detection of a regulated pathogen that have been maintained on pathogen-free water in isolation; or,
2. Juveniles from subsequent eggtakes may be transferred if the requirements have been met for egg handling, parental testing for viruses at the appropriate level, and viral detection restrictions as specified in Section IV.B. (Sampling and egg handling requirements for transfers between EHMZs).

D. Fish Transfers Outside of a FHMZ

1. Fish Transfer Requirements: Fish may be transferred outside FHMZs provided that the following conditions are met:
   a. The requirements have been met for egg handling, parental testing for viruses at the appropriate level, and viral detection restrictions as specified in Section IV.B. (Sampling and egg handling requirements for transfers between EHMZs); and,
   b. The conditions specified in Section IV.C.1. b. through d. (Requirements for transfers within FHMZ); and,
   c. The fish have been reared their entire life on regulated pathogen-free water. If this water supply contains fish, and is not treated to destroy pathogens, a negative three (3) year history for reportable pathogens can be established: if the fish are landlocked, all captive broodstocks on station have been tested for reportable viral pathogens, and a susceptible juvenile stock on station has been tested for *M.*

cerebralis. Results of all testing must be negative. Inspections must have been conducted using at least the number of fish required to meet the 2% APPL using methods prescribed in the AFS Blue Book. The time period between adult or juvenile inspections must be at least eleven (11) months. Once a three (3) year negative history is established, *M. cerebralis* testing shall be required only once every three (3) years thereafter, if the water supply remains unchanged; or,

e. The fish are to be transferred from fresh to saltwater; or,

f. The fish are captive broodstock in which regulated pathogens have not been detected and they are to be transferred from salt to freshwater and: 1). The fish are to be returned to their natal watershed; or,

(2). The fish are to be returned to a watershed within the same FHMZ that they originated from: their parents must have been tested for regulated viral pathogens at a minimum of the 5% APPL and the receiving watershed must have the same regulated pathogen history as the fishes natal watershed; or,

(3). The fish are to be transferred to a watershed outside of their original FHMZ: their parents must have been tested for regulated viral pathogens at a minimum of the 5% APPL, the fish must have been maintained on regulated pathogen-free water prior to transfer to saltwater, and the receiving watershed must have the same regulated pathogen history as the fishes natal watershed; or,

g. The fish are being transferred into an approved quarantine research facility.

2. Fish Transfer Restrictions:

a. Fish transfers outside of a FHMZ are not permitted if the transfer exposes the receiving watershed to a regulated fish pathogen.

b. Fish which test positive for a regulated pathogen can not be transferred out of their natal watershed unless the transfer is to an approved quarantine research facility.

c. Fish reared on water that is not pathogen-free can not be transferred into another FHMZ except for conditions specified in Section IV.D.1.e. and f.(3). (i.e. transfer to salt water or salt to freshwater).

V. DIAGNOSIS AND PATHOGEN REPORTING BETWEEN CO-MANAGERS & CO-OPERATORS

A. Presumed and confirmed identifications of any regulated fish pathogen within any stock and/or site will require notification of Co-Managers' and Co-Operators' fish health staffs, in writing, within two (2) working days to allow for increased sampling or other control measures at facilities within the affected area.

B. Detection of any regulated viral pathogen other than IHNV, IPNV, or North American VHSV will require an emergency meeting of the Co-Managers' fish health staffs to recommend actions to be taken.

C. Epizootics due to undetermined cause(s) will require notification in writing, within five (5) working days, of the relevant Co-Managers' and Co-Operators' fish health staff.

D. Monthly reporting of all reportable pathogens will occur between Co-Managers and Co-Operators.

E. Annual meetings will occur between the Co-Managers' and Co-Operators' fish health staffs to ensure good communications.

VI. HEALTH INSPECTION PROCEDURES

A. The minimum procedures for inspection are described in the current edition of the AFS "Fish Health Blue Book" or Title 50.

B. Co-Managers or Co-Operators, with mutual agreement, may utilize new procedures that are technically superior.

C. Specimens submitted for viral assay will be tested on EPC (epithelioma papulosum cyprini) and CHSE-214 (chinook salmon embryo 214) cell culture systems or other systems as agreed to by Co-Managers' and Co-Operators' fish health staffs.

VII. AMENDMENT PROCESS

The Co-Managers acknowledge that changes will need to be made to this document periodically to reflect new developments in fish health. To address this need they have agreed to the following process for any future amendments:

A. Proposed changes are developed and agreed to by Co-Managers' fish health representatives.

B. Proposed changes are distributed in writing to all signatory Co-Managers for a 30 day review period.

C. Proposed changes are presented at a Co-Managers' Annual Retreat for general discussion and approval.

D. The Co-Managers' Salmonid Disease Control Policy is amended to reflect the approved changes and sent to all Co-Managers for their final approval.

E. Amendments to the policy are not final until all signatures have been obtained.

VIII. EXEMPTION PROCESS

Any Co-Manager requesting an exemption to the Salmonid Disease Control Policy must notify all signatory parties in writing of their intentions and an explanation ten (10) working days prior to the act. An exemption would be granted if there has not been any written objection submitted by any of the signatory Co-Managers. If there is an objection that cannot be resolved, the procedure for dispute resolution established for the area, i.e. Puget Sound Management Plan or the Columbia River Management Plan will be followed.

IX. EGG AND FISH HEALTH MANAGEMENT ZONES

Below are the Egg and Fish Health Management Zones. Maps showing the zones are in Appendices 1 and 2. The Health Management Zones for fish transfers are smaller than those for eggs because of the higher level of risk associated with fish transfers. With the agreement of Co-Managers, zones can be more restrictive than specified in this policy.

EGG HEALTH MANAGEMENT ZONES

(1) Puget Sound tributaries north of the Lake Washington watershed up to the Canadian border, including the San Juan Islands (FHMZs 1-3 listed below)
(2) Lake Washington watershed
(3) Tributaries of East Kitsap Peninsula, and Puget Sound south of the Lake Washington watershed
(4) Hood Canal and Port Gamble tributaries
(5) Strait of Juan de Fuca tributaries
(6) Pacific Coast tributaries north of Grays Harbor (FHMZs 8-11 listed below)
(7) Grays Harbor and Willapa Bay tributaries
(8) Columbia River watershed

FISH HEALTH MANAGEMENT ZONES

(1) Puget Sound tributaries north of Swinomish Slough up to the Canadian border, including the San Juan Islands
(2) Skagit watershed
(3) Puget Sound tributaries south of and including the Stillaguamish watershed down to the Lake Washington watershed
(4) Lake Washington watershed
(5) Tributaries of East Kitsap Peninsula, and Puget Sound south of the Lake Washington watershed
(6) Hood Canal and Port Gamble tributaries
(7) Strait of Juan De Fuca tributaries
(8) Tributaries south of Cape Flattery down to and including the Ozette watershed
(9) Quillayute watershed
(10) Hoh watershed
(11) Queets and Quinault watersheds
(12) Grays Harbor tributaries
(13) Willapa Bay tributaries
(14) Columbia River watershed

APPENDIX 1

APPENDIX 2

APPENDIX 3

HATCHERY PRODUCTION CHANGE FORM

New Project Addition Change Deletion

In-Season (this year only) Permanent Change to FBD

Agency: _____ Species: _____

Facility: _____ Brood Year: _____

Stock: _____

	Number	Fish or Eggs	To or From	Destination	Date	Size (ffp)	Footnote
Eggtake Goal:							
Transfer Goal:							
Planting Goal:							

Explanation of Intent: (Please attach as much supporting documentation as possible.)

Originator: _____ Date: _____

Approved By:

Fish Management Program Date

Regional Program Manager: _____ _____

Hatcheries Program

Area Division Manager: _____ _____

Fish Health Division Manager: _____ _____

Outreach and Education Program

Regional Enhancement Group Coordinator: _____ _____

Volunteer Resources Coordinator: _____

Aquatic Education Coordinator: _____

APPENDIX 4

DEPARTMENT OF FISH AND WILDLIFE
HATCHERIES PROGRAM
600 CAPITOL WAY N.
OLYMPIA, WASHINGTON 98501-1091
PHONE 360-902-2661 FAX 360-902-2943

APPLICATION

To Import, Stock, or Transfer Live Fin Fish, Viable Eggs or Gametes
(Please print or type Items 1-6)

1. Name of Applicant _____ Phone number _____

   Mailing Address _____ Zip _____

   WDFW Aquaculture Registration # (for commercial aquaculture facilities only) _____

2. Objective: Import Export Transfer Stocking

3. Species _____ Number (fish or eggs) _____

4. Destination (name of facility/receiving waters) _____

   County _____ Sec. _____ Twnshp _____ Rng. _____

5. Source of fish/eggs: Facility name _____ Phone number _____

   Physical Location _____ Watershed _____

   Mailing Address _____ Zip _____

   WDFW Aquaculture Registration # (for commercial sources in Washington) _____

6. Is source of fish/eggs on WDFW list of certified hatcheries? (see attached list) Yes _____ No _____

7. Applicant's Signature _____ Date _____

NOTE: It is unlawful to transport or stock fish without a permit issued by the Director or his/her designee. Failure to comply with any provisions of this permit or to perform any act not included in this permit shall be grounds for revocation of this permit and shall constitute a gross misdemeanor.

(INFORMATION BELOW TO BE COMPLETED BY WDFW PERSONNEL)

PERMIT # _____

(Stocking Fee - $24.00 _____)

Provisions _____

_____

_____ Expiration date _____

(Items below are applicable to stocking permits only)

_____ These fish may be taken by any person possessing a legal fishing license and in conformance with seasons, bag limits, and rules established by the Washington State Fish and Wildlife Commission.

_____ This permit will allow the taking of these legally obtained and stocked fish without controls of bag limits, seasons, license requirements and is limited to personal use only.

Approved Not approved Regional Fish Biologist _____ Date _____
(For stocking permit only. If source is WDFW certified, no additional signatures required)

Approved Not approved Fish Health Manager _____ Date _____

Approved Not approved Aquaculture Coordinator _____ Date _____

Additional provisions attached